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AMENDMENT TO THE CLAIMS

1-30. (Cancelled)

31. (Currently amended) A method for forming a shallow junction making a device, comprising the steps of:

forming an amorphous layer at a shallow region in a silicon substrate by irradiating a plasma containing He to a substrate; and

introducing boron by applying a plasma to the shallow region of the silicon substrate; and

applying light having an intensity peak at a wavelength of 375nm or longer on the silicon substrate so that said shallow region is excited selectively and the shallow junction is formed electrically activated with the boron

impurities into the substrate; and

irradiating an electromagnetic wave so as to electrically activate the impurities, wherein in the step of irradiating the plasma, an amorphous layer is formed by He plasma.

32. (Canceled)

33. (Currently amended) The method for making a junction forming a shallow junction according to claim 31 or 32, wherein the plasma is primarily comprised mainly of He.

34. (Currently amended) The method for making a junction forming a shallow junction according to claim 31 or 32, wherein the plasma is comprised of only consists of He.

35. (Canceled)

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36. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein, assuming that wavelength is λ(nm) and light absorption ratio is A(%), the light absorption rate of a layer which is formed by introducing the boron ~~impurities~~ into the substrate satisfies at least one of following conditions:

at the wavelength ranging from 375 nm (inclusive) to 500 nm, $A > 7E32\lambda^{-12.316}$;

at the wavelength ranging from 500 nm (inclusive) to 600 nm, $A > 2E19\lambda^{-7.278}$;

at the wavelength ranging from 600 nm (inclusive) to 700 nm, $A > 4E14\lambda^{-5.5849}$; and

at the wavelength ranging from 700 nm (inclusive) to 800 nm, $A > 2E12\lambda^{-4.773}$.

37. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein, assuming that wavelength is λ(nm) and absorption coefficient is α (cm^{-1}), the light absorption coefficient of a layer which is formed by introducing the ~~impurities~~ boron into the substrate satisfies at least one of following conditions:

at the wavelength ranging from 375 nm (inclusive) to 500 nm, $\alpha > 1E38\lambda^{-12.505}$;

at the wavelength ranging from 500 nm (inclusive) to 600 nm, $\alpha > 1E24\lambda^{-7.2684}$;

at the wavelength ranging from 600 nm (inclusive) to 700 nm, $\alpha > 2E19\lambda^{-5.5873}$; and

at the wavelength ranging from 700 nm (inclusive) to 800 nm, $\alpha > 1E17\lambda^{-4.7782}$.

38-39. (Canceled)

40. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim [[39]] 31, wherein the step of ~~irradiating the electromagnetic wave~~ applying

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light is a step of irradiating light having an intensity peak at wavelength longer than 375 nm

(inclusive) and shorter than 800 nm (inclusive).

41. (Currently amended) ·The method for ~~making a junction~~ forming a shallow junction

according to claim 40, wherein the light having the intensity peak at the wavelength longer than

375 nm (inclusive) and shorter than 800 nm (inclusive) is a xenon flash lamp light.

42. (Currently amended) The method for ~~making a junction~~ forming a shallow junction

according to claim [[38]] 31, wherein the silicon substrate is a substrate having a (100) plane or

the silicon substrate comprises a plane inclined from the (100) plane by several degrees.

43. (Currently amended) The method for ~~making a junction~~ forming a shallow junction

according to claim [[38]] 31, wherein, assuming that wavelength is λ(nm) and absorption ratio is

A (%), the light absorption ratio of a layer into which the boron is introduced for light having a

wavelengths longer than 375 nm (inclusive) and shorter than 800 nm (inclusive) satisfies A >

$1E19\lambda^{-6.833}$.

44. (Currently amended) The method for ~~making a junction~~ forming a shallow junction

according to claim [[38]] 31, wherein, assuming that wavelength is λ (nm) and absorption

coefficient is α (cm^{-1}), the light absorption coefficient of a layer into which the boron is

introduced to light having wavelengths longer than 375 nm (inclusive) and shorter than 800 nm

(inclusive) satisfies $\alpha > 1E19\lambda^{-7.1693}$.

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45. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein the step of introducing the boron ~~impurities~~ is a step of introducing the boron ~~impurities~~ by plasma doping.

46. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein the substrate is a SOI substrate with a Silicon thin film formed on a surface thereof.

47. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein the substrate is a strained Si substrate with a Si film formed on a surface thereof.

48. (Currently amended) The method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~, wherein the substrate is a glass substrate with a poly-Si thin film formed on a surface thereof.

49. (Currently amended) A processed material formed by the method for ~~making a junction~~ forming a shallow junction according to claim 31 ~~or 32~~.

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